Complete Summary

GUIDELINE TITLE

Excessive sleepiness. In: Evidence-based geriatric nursing protocols for best practice.

BIBLIOGRAPHIC SOURCE(S)

Chasens ER, Williams LL, Umlauf MG. Excessive sleepiness. In: Capezuti E, Zwicker D, Mezey M, Fulmer T, editor(s). Evidence-based geriatric nursing protocols for best practice. 3rd ed. New York (NY): Springer Publishing Company; 2008. p. 459-76. [32 references]

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Umlauf MG, Chasens ER, Weaver TE. Excessive sleepiness. In: Mezey M, Fulmer T, Abraham I, Zwicker DA, editor(s). Geriatric nursing protocols for best practice. 2nd ed. New York (NY): Springer Publishing Company, Inc.; 2003. p. 47-65.

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SCOPE

DISEASE/CONDITION(S)

- Excessive sleepiness (also called excessive daytime sleepiness, hypersomnia, subjective sleepiness, and somnolence)
- Sleep disorders (obstructive sleep apnea, insomnia, restless leg syndrome)

GUIDELINE CATEGORY

Evaluation
Management

CLINICAL SPECIALTY

Geriatrics
Nursing
Sleep Medicine

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

To provide a standard of practice protocol for assisting older adults in maintaining an optimal state of alertness while awake and optimal quality and quantity of sleep during their preferred sleep interval

TARGET POPULATION

Older adults

INTERVENTIONS AND PRACTICES CONSIDERED

Assessment

1. Sleep history
2. Excessive sleepiness
    - Epworth Sleepiness Scale
    - Pittsburgh Sleep Quality Index
3. Rebound sleepiness
4. Severity of symptoms
5. Observing patients for snoring, apnea and excessive leg movements during sleep, and difficulty staying awake during daytime activities
6. Adherence to prescriptions for sleep hygiene, medications, and/or devices to support respiration during sleep

Management

1. Medical conditions, psychological disorders and symptoms that can interfere with sleep
2. Instruction and reinforcement of prescriptions for sleep hygiene, medications, and/or devices to support respiration during sleep
3. Treatment with continuous positive airway pressure
4. Referral to sleep specialists

5. Patients with obstructive sleep apnea
6. Obesity as a complicating factor
7. Follow-up monitoring including long-term reinforcement of the original interventions; adjustment or refitting of CPAP masks, if indicated; ongoing assessment of napping habits and sleepiness; and regular exercise

MAJOR OUTCOMES CONSIDERED

- Alertness while awake
- Sleep quality score
- Sleep quantity
- Weight loss in obese patients

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Although the AGREE instrument (which is described in Chapter 1 of the original guideline document) was created to critically appraise clinical practice guidelines, the process and criteria can also be applied to the development and evaluation of clinical practice protocols. Thus the AGREE instrument has been expanded for that purpose to standardize the creation and revision of the geriatric nursing practice guidelines.

The Search for Evidence Process

Locating the best evidence in the published research is dependent on framing a focused, searchable clinical question. The PICO format—an acronym for population, intervention (or occurrence or risk factor), comparison (or control), and outcome—can frame an effective literature search. The editors enlisted the assistance of the New York University Health Sciences librarian to ensure a standardized and efficient approach to collecting evidence on clinical topics. A literature search was conducted to find the best available evidence for each clinical question addressed. The results were rated for level of evidence and sent to the respective chapter author(s) to provide possible substantiation for the nursing practice protocol being developed.

In addition to rating each literature citation to its level of evidence, each citation was given a general classification, coded as "Risks," "Assessment," "Prevention," "Management," "Evaluation/Follow-up," or "Comprehensive." The citations were organized in a searchable database for later retrieval and output to chapter authors. All authors had to review the evidence and decide on its quality and relevance for inclusion in their chapter or protocol. They had the option, of course, to reject or not use the evidence provided as a result of the search or to dispute the applied level of evidence.

Developing a Search Strategy

Development of a search strategy to capture best evidence begins with database selection and translation of search terms into the controlled vocabulary of the database, if possible. In descending order of importance, the three major databases for finding the best primary evidence for most clinical nursing questions are the Cochrane Database of Systematic Reviews, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Medline or PubMed. In addition, the PsycINFO database was used to ensure capture of relevant evidence in the psychology and behavioral sciences literature for many of the topics. Synthesis sources such as UpToDate® and British Medical Journal (BMJ) Clinical Evidence and abstract journals such as *Evidence Based Nursing* supplemented the initial searches. Searching of other specialty databases may have to be warranted depending on the clinical question.

It bears noting that the database architecture can be exploited to limit the search to articles tagged with the publication type "meta-analysis" in Medline or "systematic review" in CINAHL. Filtering by standard age groups such as "65 and over" is another standard categorical limit for narrowing for relevance. A literature search retrieves the initial citations that begin to provide evidence. Appraisal of the initial literature retrieved may lead the searcher to other cited articles, triggering new ideas for expanding or narrowing the literature search with related descriptors or terms in the article abstract.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Level I: Systematic reviews (integrative/meta-analyses/clinical practice guidelines based on systematic reviews)

Level II: Single experimental study (randomized controlled trials [RCTs])

Level III: Quasi-experimental studies

Level IV: Non-experimental studies

Level V: Care report/program evaluation/narrative literature reviews

Level VI: Opinions of respected authorities/Consensus panels

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note from the National Guideline Clearinghouse (NGC): In this update of the guideline, the process previously used to develop the geriatric nursing protocols has been enhanced.

Levels of evidence (I – VI) are defined at the end of the "Major Recommendations" field.

Parameters of Assessment

- A sleep history (see Table 20.2 in the original guideline document) should include information from both the patient and family members. People who share living and sleeping spaces can provide important information about sleep behavior that the patient may not be able to convey.
- The Epworth Sleepiness Scale (Johns, 1991 **[Level IV]**; Avidan, 2005 **[Level I]**; National Center on Sleep Disorders Work Group, 1999 **[Level VI]**) (see Table 20.1 in the original guideline document) is a brief instrument to screen for severity of daytime sleepiness in the community setting. See Resources section *Try this* at www.ConsultGeriRN.org.
- Table 20.3 the original guideline document outlines key points in obtaining salient information from older patients and their family members as well as gauging severity of symptoms. (American Academy of Sleep Medicine Task Force, 1999 **[Level I]**).
- The Pittsburgh Sleep Quality Index (Buysse et al., 1989 **[Level IV]**) is useful to screen for sleep problems in the home environment and to monitor changes in sleep quality. See Resources section *Try this* at www.ConsultGeriRN.org.

Nursing Care Strategies

- Vigilance by nursing staff in observing patients for snoring, apneas during sleep, excessive leg movements during sleep, and difficulty staying awake during normal daytime activities (Ancoli-Israel & Ayalon, 2006 **[Level I]**; Avidan, 2005 **[Level I]**).
- Management of medical conditions, psychological disorders and symptoms that interfere with sleep such as: depression, pain, hot flashes, anemia, or uremia (Ancoli-Israel & Ayalon, 2006 **[Level I]**; Avidan, 2005 **[Level I]**).
- For patients with a current diagnosis of a sleep disorder, ongoing treatments such as continuous positive airway pressure (CPAP) should be documented, maintained, and reinforced through patient and family education (Avidan, 2005 **[Level I]**). Nursing staff should reinforce patient instruction in cleaning and maintaining positive airway pressure equipment and masks.
- Instruction for patients and families regarding sleep-hygiene techniques to protect and promote sleep among all family members (see Table 20.4 in original guideline document) (Avidan, 2005 **[Level I]**).
- Review and, if necessary, adjustment of medications that interact with one another or whose side effects include drowsiness or sleep impairment (Ancoli-Israel & Ayalon, 2006 **[Level I]**).
- Referral to a sleep specialist for moderate and severe sleepiness or a clinical profile consistent with major sleep disorders, such as obstructive sleep apnea or restless legs syndrome (Avidan, 2005 **[Level I]**).
- Aggressive planning, monitoring and management of patients with obstructive sleep apnea when sedative medications or anesthesia are given (Avidan, 2005 **[Level I]**).
- Ongoing assessment of adherence to prescriptions for sleep hygiene, medications and devices to support respiration during sleep (Avidan, 2005 **[Level I]**).

Follow-up Monitoring

- Depending upon diagnosis, follow-up may include long-term reinforcement of the original interventions along with support for adhering to treatments prescribed by a sleep specialist. For example, patient compliance with CPAP therapy for obstructive sleep apnea is critical to its efficacy and should be assessed during the first week of treatment (Weaver et al., 1997 **[Level IV]**). All patients benefit from positive reinforcement while trying to acclimate to nightly use of a positive airway pressure device.
- CPAP masks may require minor adjustments or refitting to find the most comfortable fit. Most such changes are needed during the acclimation period, but patients should be encouraged to seek assistance if mask problems develop (Weaver et al., 1997 **[Level IV]**). In the acute-care setting, respiratory-care technicians are valuable in-house resources when staff from a sleep center is not readily available.
- During the initial treatment phase of insomnia, sleep deprivation may cause rebound sleepiness, which should subside over time. Follow-up should include ongoing assessment of napping habits and sleepiness to track treatment effectiveness (Avidan, 2005 **[Level I]**).
- If obesity has been a complicating health factor, weight loss is a desirable long-term goal. With reduction in daytime sleepiness, the timing is ripe for increasing the activity level. Treatment of sleep disorders should include planning for strategic changes in lifestyle that include regular exercise, which is also consistent with cardiovascular health and long-term diabetes control (Ancoli-Israel & Ayalon, 2006 **[Level I]**; Avidan, 2005 **[Level I]**).

Definitions:

Level I: Systematic reviews (integrative/meta-analyses/clinical practice guidelines based on systematic reviews)

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Level IV: Non-experimental studies

Level V: Care report/program evaluation/narrative literature reviews

Level VI: Opinions of respected authorities/Consensus panels

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for selected recommendations.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Improved quality and/or quantity of sleep during normal sleep intervals, as reported by patients and staff, through quality assurance actions such as staff education, environmental surveys regarding noise level, strategies to reduce sleep disruption, etc.

POTENTIAL HARMS

Not stated

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Chart Documentation/Checklists/Forms

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness
Staying Healthy

IOM DOMAIN

Effectiveness

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2003 (revised 2008 Jan)

GUIDELINE DEVELOPER(S)

Hartford Institute for Geriatric Nursing - Academic Institution

GUIDELINE DEVELOPER COMMENT

The guidelines were developed by a group of nursing experts from across the country as part of the Nurses Improving Care for Health System Elders (NICHE) project, under sponsorship of The John A. Hartford Foundation Institute for Geriatric Nursing.

SOURCE(S) OF FUNDING

Supported by a grant from The John A. Hartford Foundation.

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Primary Authors: Eileen R. Chasens, Laura L. Williams, Mary Grace Umlauf

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

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GUIDELINE AVAILABILITY

Electronic copies: Available from the Hartford Institute for Geriatric Nursing Web site.

Copies of the book *Geriatric Nursing Protocols for Best Practice*, 3rd edition: Available from Springer Publishing Company, 536 Broadway, New York, NY 10012; Phone: (212) 431-4370; Fax: (212) 941-7842; Web: www.springerpub.com.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- The Pittsburgh sleep quality index (PSQI). Try this: best practices in nursing care to older adults. 2007. Electronic copies: Available from the Hartford Institute for Geriatric Nursing Web site.
- The Epworth sleepiness scale is included in the original guideline document.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on May 30, 2003. The information was verified by the guideline developer on August 25, 2003. This summary was updated by ECRI Institute on June 19, 2008. The updated information was verified by the guideline developer on August 4, 2008.

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